REMARKS

Claims 1, 6-9, 11, 13, 14, 25-28, and 30 are pending. Claim 1 is amended. Claim 31 is newly added. Claims 2-5, 10, 12, 15-24, and 29 were previously canceled. Claims 1, 6, and 25 are independent. The amendments made and the new claim added find support in the specification as discussed herein below and do not constitute new matter.

1. Summary

1.1. The claims variously encompass, *inter alia*, systems for use in printing data on a printer. Example systems variously encompassed by the claims include a client with an applications program capable of a print function. The client includes a client print spooler to which the applications program is operable to communicate a print request. The data from the application is provided by the client print spooler via a first communications channel to a server print spooler of a print server that is coupled to a printer. In particular, the first communications channel provides for communicating data from the application *and for control of printing according to the print request*. The client also includes a user interface manager coupled to the client print spooler. Language neutral messages from the printer are received by the client print spooler via the print server and a second communications channel. Of particular note is that in an example embodiment variously encompassed by the claims, there are two distinct communications channels, the first channel specifically providing for communicating data from the application and for control of printing according to the print request, and

the second channel specifically providing language neutral messages from the printer to the client print spooler.

2. Rejections under 35 U.S.C. §103—Claims 1, 6-9, 11, 13, 14, 25-28, and 30

2.1. The Examiner has rejected claims 1, 6-9, 11, 13, 14, 25-28, and 30 under 35 U.S.C. §103(a) as being unpatentable over Teng (US 6,240,456) and Walbeck (7,310,670). Applicants respectfully traverse.

2.2. With respect to claim 1, the Examiner alleges that the combination of Teng and Walbeck teach the two claimed communications channels (OA, pg. 3, line 7-pg. 5, line 3). Applicants respectfully traverse for at least the reasons detailed herein below.

2.3. First, the Examiner alleges that Teng teaches "a first communications channel coupling, via a network, the client print spooler with a server print spooler operating on a print server, the print server distinct from the client, the print server coupled to a printer, wherein the first communications channel provides for communicating data from the application and for control of printing according to the print request" and, for support, cites Teng, FIG. 2 and column 6, lines 1-21 (OA, pg. 3, line 7). Applicants respectfully traverse. As cited by the Examiner, Teng teaches:

> "Specifically, with reference to FIG. 4, the network client 20 and the network server 49 include the components necessary to perform the print job. Generally, the network client 20 includes an ***application process*** *60* ***linked to*** *a system API 62, such as a standard text API or drawing API, which is, in turn, linked to* ***a system spooler*** 64. The ***system spooler 64 includes*** a system Internet API or sockets driver 66 which provides a ***means for the network client 20 to communicate with the network server*** 49 via the Internet 68. Meanwhile, the network server 49 includes a network Internet server 70, such as a Microsoft Internet Information Server, which is used to accept transmissions from the

> Internet 68. The ***internet server*** *70 is* ***linked to a server scripter component*** 72, such as an Internet Server API (ISAPI) wrapper, ***which includes a HTTP print server*** *component.* A *system* ***spooler 74 is connected to the server scripter component*** *72 via an API 76* ***and to the printer*** 50 which has a URL address assigned thereto. It is to be noted that the network server 49 may be implemented as a personal computer, standalone, smart printer, or the like having all of the components discussed above." (Teng, col. 6, lines 1-21; emphasis added)

2.3.1. Considering the above and referring to FIG. 2, Teng teaches an application (60) coupled to a spooler (64) both on a client (20), the client spooler (20) communicating over the Internet (68) with a server (49) including an HTTP print server (right of 72) coupled to a spooler (74) that spools data to a printer (50). In particular, Teng teaches a single coupling—the Internet (68)—between the client spooler (64) and the server spooler (74). But **claim 1** recites, *inter alia*, both:

2.3.1.1. "*a first communications channel* coupling, via a network, the client print spooler with a server print spooler operating on a print server"; and

2.3.1.2. "*a second communications channel* coupling, via the network, the client print spooler with the print server, *the second communications channel distinct from the first communication channel*".

2.3.2. Teng is silent regarding two distinct communications channels in his figures and in his written description. Nor does Teng provide any suggestion or motivation for two distinct communications channels as recited in **claim 1**. Further, the Examiner admits that Teng does not teach "the use of two distinct asynchronous communications channels between the client and the server" (OA, pg. 13, line 9), so the Examiner cites Walbeck which is discussed herein below.

2.4. **Second**, the Examiner alleges that Walbeck teaches "a second communications channel coupling, via the network, the client print spooler with the print server, the

second communications channel distinct from the first communication channel, wherein the client print spooler receives messages from the printer via the print server via the second communications channel" and, for support, cites Walbeck, column 2, lines 10-28 (OA, pg. 4, line 12). Applicants respectfully traverse. As cited by the Examiner, Walbeck teaches:

> "The networking protocol allows any node on the network to assign itself as the active network server. The active network server polls client nodes based on a lineup card. Inactive nodes are automatically removed from the lineup card, thus reducing unnecessary polling traffic. This architecture reduces collisions while preserving bandwidth for actual data transmission. ***Support for both control and data networking needs is provided by the protocol. Support for*** *streaming data or* ***asynchronous data is provided by allocating time slots on the network*** *and allowing two intelligent nodes to talk directly to each other* as arbitrated by the active network server. The ***active network server can also allocate separate data channels*** such that large amounts of data traffic can flow independently of the operations of the main network. The network node serving as the active network server can be changed on a dynamic basis, and is typically determined by the first node initiating a transmit request on a sleeping network. Client nodes are addressed by dynamic polling using an address isolation scheme." (Walbeck, col. 2, lines 10-28; emphasis added)

2.4.1. Therefore, Walbeck teaches allocating "separate data channels", but Walbeck does not disclose "*a first communications channel coupling*, via a network, *the client print spooler with a server print spooler* operating on a print server", as recited in **claim 1**. Nor does Walbeck disclose "*a second communications channel* coupling, via the network, the client print spooler with the print server", as recited in **claim 1**. This is at least because Walbeck *is silent* regarding the "client print spooler" and the "server print spooler" as recited in **claim 1**.

2.4.2. Walbeck goes on to teach:

> "The ***multi-channel transmitter 2012 and multi-channel receiver 2011 can be used, for example, in the printer*** 110, the computers 103 and 104, and

the security lighting system 118 shown in FIG. 1." (Walbeck, col. 38, lines 1-4; emphasis added)

2.4.3. Therefore, Walbeck discloses a multi-channel transmitter and receiver that can be used in a printer, etc. But Walbeck provides no additional details regarding the use or structure of such either in the figures or the written description.

2.4.3.1. In particular, Walbeck does not suggest any channel that is "a first communications channel *coupling, via a network, the client print spooler with a server print spooler operating on a print server*", as recited in **claim 1**, at least because Walbeck does not disclose or suggest utilizing his multi-channel technologies with a print spooler. Nor does Walbeck disclose or suggest a print spooler at all.

2.4.3.2. Further, Walbeck does not suggest "a second communications channel *coupling, via the network, the client print spooler with the print server*", as recited in **claim 1**, again at least because Walbeck does not disclose or suggest utilizing his multi-channel technologies with a print spooler. Nor does Walbeck disclose or suggest a print spooler at all.

2.4.3.3. Further, Walbeck does not suggest any motivation for coupling a "client print spooler" via a "first communications channel" to a "server sprint spooler", and/or for coupling the "client print spooler" via a "second communications channel" to a "print server".

2.5. Accordingly, neither Teng nor Walbeck teach the features recited in **claim 1**, nor do they suggest any motivation for combining the references to arrive at the features recited in **claim 1**, as discussed herein below.

2.5.1. Teng is silent regarding two distinct communications channels. Further, Teng does not provide any suggestion or motivation for two distinct communications channels as recited in **claim 1**. Further, the Examiner admits that Teng does not teach "the use of two distinct asynchronous communications channels between the client and the server" (OA, pg. 13, line 9).

2.5.2. Walbeck does not suggest any motivation for coupling a "client print spooler" via a "first communications channel" to a "server sprint spooler", and for coupling the "client print spooler" via a "second communications channel" to a "print server", as recited in **claim 1**, at least because Walbeck do not disclose or suggest utilizing his multi-channel technologies with a print spooler. Nor does Walbeck disclose or suggest a print spooler at all.

2.5.3. Accordingly, neither Teng nor Walbeck, alone or together, suggests any motivation for combining the two references to arrive at the features recited in **claim 1** as required to establish a *prima facie* case of obviousness per MPEP 2143(G). Therefore, Applicants respectfully traverse and request that the Examiner withdraws the rejection.

2.6. Further, **claims 6 and 25** were rejected by the Examiner for reasons essentially the same as those of **claim 1** (OA, pgs. 6, 9, and 12, 2nd para). Applicants respectfully traverse and discuss **claims 6 and 25** herein below.

2.6.1. Regarding **claim 6**, since Teng is silent regarding two distinct communications channels, Teng fails to disclose, *inter alia*, "the server print spooler in communication with a client print spooler operating on a client, *the communication via a first asynchronous communications channel*" and "a user interface manager that communicates with the print server by means of *a second asynchronous*

communications channel, the second asynchronous channel distinct from the first asynchronous channel", as recited in **claim 6**. Further, Teng does not provide any suggestion or motivation for two distinct communications channels.

2.6.1.1. Further, since Walbeck does not disclose or suggest utilizing his multi-channel technologies with a print spooler, and does not disclose a print spooler at all, Walbeck fails to disclose, *inter alia*, "the *server print spooler in communication with a client print spooler operating on a client, the communication via a first asynchronous communications channel*", as recited in **claim 6**.

2.6.1.2. Accordingly, neither Teng nor Walbeck, alone or together, suggests any motivation for combining the two references to arrive at the features recited in **claim 6** as required to establish a *prima facie* case of obviousness per MPEP 2143(G). Therefore, Applicants respectfully traverse and request that the Examiner withdraws the rejection.

2.6.2. Regarding **claim 25**, since Teng is silent regarding two distinct communications channels, Teng fails to disclose, *inter alia*, "a *client print spooler* operating on a client which in turn *communicates with a server print spooler* operating on a server... *over a first communications channel*" and "language neutral messages from the server *sent over a second communications channel to the client print spooler*, the second communications channel being distinct from the first communications channel", as recited in **claim 25**. Further, Teng does not provide any suggestion or motivation for two distinct communications channels.

2.6.2.1. Further, since Walbeck does not disclose or suggest utilizing his multi-channel technologies with a print spooler, and does not disclose a print spooler at all, Walbeck fails to disclose, *inter alia*, "a *client print spooler* operating on a client which in

turn *communicates with a server print spooler* operating on a server... *over a first communications channel*" and "language neutral messages from the server *sent over a second communications channel to the client print spooler*", as recited in **claim 25**.

2.6.2.2. Accordingly, neither Teng nor Walbeck, alone or together, suggests any motivation for combining the two references to arrive at the features recited in **claim 25** as required to establish a *prima facie* case of obviousness per MPEP 2143(G). Therefore, Applicants respectfully traverse and request that the Examiner withdraws the rejection.

2.6.3. Accordingly, Applicants submit that independent **claims 1, 6, and 25** are not unpatentable over Teng, even in view of Walbeck, under 35 U.S.C. §103(a). Therefore, Applicants respectfully request that the Examiner withdraw the rejection.

2.7. Further, **claims 7-9, 11, 13, 14, 26-28, and 30** depend variously from allowable **claims 1, 6, and 25**, and are therefore likewise allowable for at least the same reasons.

3. Walbeck Teaches Away

3.1. Walbeck specifically *teaches away* from using print servers, as recited in **claim 1**. In particular, Walbeck teaches:

> "However, a typical printer is a "dumb" device and does not have the necessary processing and storage capabilities. Some manufacturers provide ***network printer adapters that allow a printer to be connected to a network***. ... The ***network printer adapter thus converts the "dumb" printer into a "smart" device***. *Although the network printer adapters do work,* ***they are relatively expensive and therefore unsuitable for many home and small office environments***." (Walbeck, portions col. 1, lines 32-42; emphasis added)

3.2. Therefore, Walbeck specifically *teaches away* from the use of print servers calling them "unsuitable" (see above quote, lines 6; the alternate term "network printer adapter" is used which was known to those of average skill in the art at the time of the invention as a "print server" as well). Therefore, one of ordinary skill in the art at the time of the invention would not have looked to Walbeck to provide "a second communications channel *coupling, via the network, the client print spooler with the print server*", as recited in **claim 1**. Accordingly, *Walbeck cannot properly be used in a rejection in combination with other references*; see MPEP 2145(X)(D)(2) which states, "It is improper to combine references where the references teach away from their combination". Also see MPEP 2141.02(VI) which states, "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." Therefore, Applicants respectfully traverse and request that the Examiner withdraw the rejection and cease to rely on Walbeck.

4. **New Dependent Claim 31**

4.1. New **claim 31** has been added to further recite features of the invention. Support for the new claim can be found in the original specification at least on page 2, lines 10-16; page 7, lines 13-17; page 9, line 31-page 10, line 3; and the Abstract, lines 12-13. Applicants submit that **claim 31** is dependent from allowable **claim 25** and is therefore likewise allowable for at least the same reasons.

CONCLUSION

Accordingly, in view of the above Amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Based on the foregoing, Applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this Amendment, that the Application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time.

Respectfully submitted,

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